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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/561,384	12/16/2005	Mitsuaki Oshima	49288.1800	6471

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EXAMINER	
SAUNDERS, PAUL	

ART UNIT	PAPER NUMBER
2622	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/561,384	OSHIMA, MITSUAKI	
	Examiner	Art Unit	
	PAUL SAUNDERS	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 December 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *16 December 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☒ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed specifically the limitations “the static image based on the plurality of frame information stored in the storage section” and “a resolution changing section for changing a resolution of the plurality of frames”.

Claim Objections

2. **Claims 2-4, 12 and 14** are objected to because of the following informalities. Appropriate correction is required.

Regarding **claims 2-4**, they improperly depend on claim 1 when using the referencing phrase "an information generating apparatus". It is suggested to change the phrase to "an ~~information~~image generating apparatus".

Regarding **claims 4, 12 and14**, the phrase “based on information generated by adding information indicating a plurality of pixels” is not very clear. The Examiner requests that the phrase be rewritten to more clearly state the desired limitation or to reference the disclosure where this desired limitation is being taught or to provide an explanation of what is meant by the phrase.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. **Claims 1-7,13,15** are rejected under 35 U.S.C. 102(e) as being anticipated by

i. Hara (US 7,057,645 B1).

Regarding **claim 1**, Hara discloses (refer to the rejection of claim 5) an image generating apparatus comprising: a storage section for storing a plurality of frame information; and an information generating section for generating static image information indicating a static image based on the plurality of frame information stored in the storage section, wherein the plurality of frame information is information indicating a plurality of frames representing a static image taken during a predetermined exposure period, and the information has been corrected in accordance with an amount of shaking motion between the plurality of frames.

Regarding **claim 2**, Hara discloses (refer to the rejection of claim 6) an information generating apparatus according to claim 1, wherein the information

generating section generates the static image information by simultaneously calculating the plurality of frame information stored in the storage section.

Regarding **claim 3**, Hara discloses (refer to the rejection of claim 7) an information generating apparatus according to claim 1, wherein the information generating section generates the static image information by sequentially calculating each of the plurality of frame information stored in the storage section.

Regarding **claim 4**, Hara discloses an information generating apparatus according to claim 1, wherein the plurality of frame information are generated based on information generated by adding information indicating a plurality of pixels included in an image pickup plane of an image pickup element in at least one of a horizontal direction and a vertical direction (col. 8 lines 19-29 – the static image is adjusted by each of the plurality of frame information).

Regarding **claim 5**, Hara discloses an image pickup apparatus 100 for taking a static image during a predetermined exposure period (figs. 6-7, col. 4 lines 11-61 – final image data being a static image), comprising: a shaking motion detecting section 312 for detecting an amount of shaking motion between a plurality of frames representing the static image (fig. 2, 9, 10, col. 5 lines 1-17, col. 12 lines 20-26); a shaking motion correcting section 306 for correcting a plurality of frame information indicating the plurality of frames in accordance with the detected amount of the shaking motion #285

(fig. 2, 10, col. 13 lines 1-39); a storage section 307 for storing the plurality of frame information subjected to the correction of the shaking motion #290 (fig. 2, 10, col. 12 line 26, col. 13 lines 39-46); and an information generating section for generating static image information 307,130 indicating the static image based on the plurality of frame information stored in the storage section (fig. 2, 10, col. 13 lines 50-63).

Regarding **claim 6**, Hara (Second Embodiment, col. 17 lines 26-29) discloses an image pickup apparatus according to claim 5 (the rejection of claim 5 based on the Second Embodiment is similar to the rejection based on the First Embodiment), wherein the information generating section generates the static image information by simultaneously calculating the plurality of frame information stored in the storage section (fig. 15, 16, 19, col. 17 lines 42-49, col. 22 line 66-col. 23 line 4 - the final image data is at once calculated after all frames and corresponding frame shake amount have been captured and stored).

Regarding **claim 7**, Hara discloses an image pickup apparatus according to claim 5, wherein the information generating section generates the static image information by sequentially calculating each of the plurality of frame information stored in the storage section (the final image data is calculated sequentially between frame captures).

Regarding **claim 13**, Hara discloses an image pickup apparatus according to claim 5, wherein: the shaking motion detecting section detects the amount of the shaking motion based not on information generated based on a plurality of pixels included in an image pickup plane of an image pickup element (fig. 2 – amount of shaking motion is based on xyz sensors 121-123).

Regarding **claim 15**, Hara discloses (refer to the rejection of claim 5) an image pickup method for taking a static image during a predetermined exposure period, comprising the steps of: detecting an amount of shaking motion between a plurality of frames representing the static image; correcting a plurality of frame information indicating the plurality of frames in accordance with the detected amount of the shaking motion; storing the plurality of frame information subjected to the correction of the shaking motion; and generating static image information indicating the static image based on the plurality of frame information stored in the storage section.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. **Claim 8** is rejected under 35 U.S.C. 103(a) as being unpatentable over

i. Hara (US 7,057,645 B1) in view of

ii. Dutta (US 2003/0076408 A1).

Regarding **claim 8**, Hara does not expressly disclose an image pickup apparatus according to claim 5, further comprising a resolution changing section for changing a resolution of the plurality of frames in accordance with the amount of the shaking motion.

Dutta disclose an image pickup apparatus according to claim 5, further comprising a resolution changing section for changing a resolution of the plurality of frames in accordance with the amount of the shaking motion (fig. 3, 4, 5, 6, [0028] – same uniform size being resolution changing). Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the image pickup apparatus taught by Hara to further adjust the resolution of the plurality of frames as taught by Dutta in order to compensate for shaking motion away from or closer to the object being captured ([0027,0028]).

7. **Claim 9** rejected under 35 U.S.C. 103(a) as being unpatentable over

i. Hara (US 7,057,645 B1) in view of
ii. Dutta (US 2003/0076408 A1) and in further view of
iii. Kotaki (JP 2001/230965 A).

Regarding **claim 9**, Hara and Dutta as viewed does not expressly disclose an image pickup apparatus according to claim 8, further comprising a frame rate changing section for changing a frame rate in accordance with the amount of the shaking motion, wherein the frame rate indicates the number of the plurality of frames representing the static image taken per unit time.

Kotaki discloses an image pickup apparatus according to claim 8, further comprising a frame rate changing section 22 for changing a frame rate in accordance with the amount of the shaking motion, wherein the frame rate indicates the number of the plurality of frames representing the static image taken per unit time (Abstract – the number of images to add pixels being frame rate). Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the image pickup apparatus taught by Hara and Dutta as viewed to allow adjustment of frame rate C based on the amount of the shaking motion as taught by Kotaki in order to preserve picture quality (Abstract).

8. **Claim 10** rejected under 35 U.S.C. 103(a) as being unpatentable over

i. Hara (US 7,057,645 B1) in view of
ii. Kingetsu (US 6,181,379 B1).

Regarding **claim 10**, Hara does not expressly disclose an image pickup apparatus according to claim 5, further comprising a resolution changing section for changing a resolution of the plurality of frames in accordance with a brightness.

Kingetsu discloses an image pickup apparatus further comprising automatically adjusting resolution based on brightness in favor of good exposure (fig. 8, 10, col. 1 lines 56-62, col. 4 line 54-col. 5 line 7). Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the image pickup apparatus taught by Hara to further adjust resolution of the plurality of frames based on a brightness as taught by Kingetsu in order to obtain good final image reproduction (col. 5 lines 2-4).

9. **Claim 11** rejected under 35 U.S.C. 103(a) as being unpatentable over

i. Hara (US 7,057,645 B1) in view of
ii. Kingetsu (US 6,181,379 B1)
as applied to claim 10 above, and further in view of
iii. Okada (US 5,502,484 A).

Regarding **claim 11**, Hara does not expressly disclose an image pickup apparatus according to claim 10, further comprising a resolution changing section for changing a resolution of the plurality of frames in accordance with a zoom ratio.

Okada discloses an image pickup apparatus further comprising a resolution changing section for changing a resolution of the plurality of frames in accordance with a zoom ratio (fig. 1, 5A-B, 6, 9A-B, 10, 11, col. 6 lines 46-54). Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the image pickup apparatus taught by Hara to further provide an electronic zoom function modifying the plurality of frames based on a specified zoom ratio as taught by Okada in order to provide a zooming function.

10. **Claims 12,14** rejected under 35 U.S.C. 103(a) as being unpatentable over

i. Hara (US 7,057,645 B1) in view of
ii. Sugawara (JP 2001/086398 – English Abstract)

Regarding **claim 12**, Hara discloses an image pickup apparatus according to claim 5, wherein: the shaking motion correcting section corrects the plurality of frame information by cutting out a part of the plurality of frame information in accordance with the amount of the shaking motion (fig. 11B, col. 14 lines 42-48).

Hara does not expressly disclose an image pickup apparatus according to claim 5, wherein: the shaking motion detecting section detects the amount of the shaking motion based on information generated by adding information indicating a plurality of pixels included in an image pickup plane of an image pickup element.

Sugawara discloses an image pickup apparatus wherein: the shaking motion detecting section detects the amount of the shaking motion based on information generated by adding information indicating a plurality of pixels included in an image pickup plane of an image pickup element (Abstract – shake motion is based on image signal). Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the image pickup apparatus shaking motion detecting section based on xyz motion sensors taught by Hara to detect shaking motion based on image signal as taught by Sugawara because it is functionally equivalent.

Regarding **claim 14**, Hara as viewed (refer to the rejection of claim 12) discloses an image pickup apparatus according to claim 5, further comprising a determining section #130 for determining whether or not the predetermined exposure time T1 is greater than a predetermined value 2T0, and wherein, when it is determined that the predetermined exposure time is greater than the predetermined value #150 (Hara fig. 8 – step #150 is the mode that the shaking motion detecting section will be utilized), the shaking motion detecting section detects the amount of the shaking motion based on information generated by adding information indicating a plurality of pixels included in

an image pickup plane of an image pickup element (Sugawara Abstract – shake motion is based on image signal).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PAUL SAUNDERS whose telephone number is (571)270-3319. The examiner can normally be reached on Mon-Thur 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, NgocYen Vu can be reached on 571.272.7320. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/PS/
8/29/2008

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